Serial No.: 09/518,551
Filing Date: March 3, 2000
Amendment dated August 5, 2004
Reply to Office Action of May 6, 2004

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Cancelled)
- (Currently amended) The method of claim [[1]] 4, further comprising:
 reserving said logical I/O device for said first node within said second RAID controller, in
 response to said communicated reservation request.
- 3. (Previously presented) The method of claim 2, wherein the act of reserving further comprises:

determining whether said logical I/O device is already reserved within said second RAID controller;

communicating a response, indicating failure to reserve said logical I/O device, to said first node when said logical I/O device is already reserved; and

otherwise, reserving said logical I/O device for said first node within said second RAID controller, and communicating to said first node a response indicating success in reserving said logical I/O device.

4. (Previously presented) A method for managing access to a logical I/O device, said method comprising:

communicatively coupling first and second nodes, having respective first and second bus controllers having respective first and second reservation tables, and said logical I/O device, by means of a bus and said first and second bus controllers;

receiving on said first controller a request to reserve said logical I/O device;

updating the first reservation table to reflect reservation of the logical I/O device;

communicating by means of said bus from said first to said second controller a reservation request for said logical I/O device for updating by said second controller of said second reservation table, in response to said receiving;

receiving a response to said communicated reservation request;

aborting the method for managing access when said response indicates failure to reserve and said first controller is subordinate to said second controller;

otherwise, delaying and communicating again a reservation request for said logical I/O device when said response indicates failure to reserve and said first controller is dominant to said second controller; and

otherwise, responding, indicating success, to said received reservation request.

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5. (Currently amended) The method of claim [[1]] 4, wherein the act of communicatively coupling further comprises:

communicatively coupling said first and second nodes and said logical I/O device depending from a multi-logical-device, third RAID controller by means of said bus and said first and second RAID controllers.

6. (Currently amended) The method of claim [[1]] 4, wherein after the act of receiving and before the act of communicating:

in response to said reservation request, determining whether said logical I/O device is already reserved within said first RAID controller, and aborting said method for managing access when said logical I/O device is already reserved; and

otherwise, reserving said logical I/O device for said first node within said first RAID controller.

Claims 7 - 9. (Cancelled)

10. (Previously Presented) A computer-readable medium for data storage wherein is located a computer program including instructions for causing a first node in a computer system, having a first RAID controller having a first reservation table, to manage access to a logical I/O device in said computer system by:

receiving on said first RAID controller a request to reserve said logical I/O device; updating the first reservation table to reflect reservation of the logical I/O device; and

communicating in response to receiving said request, a reservation request for said logical I/O device from said first RAID controller to a RAID second controller of a second node for updating of a second reservation table by said second controller;

receiving a response to said reservation request;

aborting said method for managing access when said response indicates failure to reserve and said first controller is subordinate to said second controller;

otherwise, delaying and communicating again a reservation request for said logical I/O device when said response indicates failure to reserve and said first controller is dominant to said second controller; and

otherwise, responding, indicating success, to said received reservation request...

Claims 11 - 23. (Cancelled)

24. (Currently amended) The method of claim [[1]] 4, wherein said communicatively coupling further comprises said logical I/O device is stored on a plurality of physical I/O devices.

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25. (Previously Presented) The method of claim [[1]] 4, wherein said communicatively coupling further comprises said logical I/O device is selected from a plurality of logical I/O devices, with each logical I/O device defined in part on a common physical I/O device.

26. (Cancelled)

27. (Cancelled)

28. (Currently amended) The method of claim [[1]] 28, wherein the first and second reservation tables each cross-reference logical devices with a reserving SCSI device.

29. (Currently amended) The method of claim [[1]] 4, further comprising:

receiving successful communication from said second controller; and

completing the reservation command to an operating system after receiving said successful communication.

30. (New) A computer program product for use in conjunction with a computer system, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism, comprising:

a program module that manages access to a logical I/O device in said computer system, the program module including instructions for:

receiving on said first controller a request to reserve said logical I/O device;

updating the first reservation table to reflect reservation of the logical I/O device;

communicating by means of said bus from said first to said second controller a reservation request for said logical I/O device for updating by said second controller of said second reservation table, in response to said receiving;

receiving a response to said communicated reservation request;

aborting the method for managing access when said response indicates failure to reserve and said first controller is subordinate to said second controller;

otherwise, delaying and communicating again a reservation request for said logical I/O device when said response indicates failure to reserve and said first controller is dominant to said second controller; and

otherwise, responding, indicating success, to said received reservation request.